

REMARKS

Claims 1-11 and 13-15 are pending. By this response, the specification and claims 1, 11, 13 and 14 are amended and claim 12 cancelled. Reconsideration and allowance based on the above amendments and following remarks are respectfully requested.

Specification

The Office Action suggests amendments to include headings in the specification in order to clarify the specific sections therein. Applicants have amended the specification to include section heading where appropriate. Applicants respectfully submit that these amendments do not add any new matter.

Drawings

The Office Action objects to the drawings noting that the reference character "8" has been used to designate both video database and image database on page 7 of the specification. In response, Applicants note that this is not an error with the drawings but an error in the specification. The term "image database" on page 7, line 20 of the specification is incorrect and it should state "video database." Applicants have amended the specification to correct this error. Therefore, Applicants respectfully submit that the reference character "8" properly designates the video database only. Accordingly, withdrawal of the objection is respectfully requested.

112, Second Paragraph

The Office Action rejects claims 11 and 13-14 under 35 U.S.C. § 112, second paragraph as being indefinite. Specifically, the Office Action alleges that claims 11, 13 and 14 do not provide proper structure, functionality or method/process steps. In response, Applicants have

amended claims 11, 13 and 14 to recite the respective structural, functional and method/process steps. Accordingly, withdrawal of the rejection is respectfully requested.

101 Rejection

The Office Action rejects claims 12 and 14 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Applicants note that claim 12 has been cancelled. With regard to claim 14, the Office Action alleges that the process steps are not set forth. Applicants note that claim 14 has been amended to recite the process steps. Applicants respectfully submit that claim 14 is directed to statutory subject matter. Accordingly, withdrawal of the rejection is respectfully requested.

Prior Art Rejection

The Office Action rejects claim 1-9 and 11-15 under 35 U.S.C. § 102(b) as being anticipated by Hori et al. (EP 1 154 379 A2) and claim under 35 U.S.C. § 103(a) as being unpatentable over Hori in view of Cieplinski et al. (WO 00/67203). These rejections are respectfully traversed.

Claim 1 refers to a method of representing motion of an object appearing in a sequence of images wherein an error value is based on the change in area of the object as represented by the representative point and the area of the object with the representative point replaced by the respective approximate function value. Applicants respectfully submit that Hori fails to teach at least the above noted features of independent claim 1.

In the Office Action it is asserted that col. 9, lines 28-45 and col. 15, line 21 provide the teachings for the above features of claim 1. Applicants respectfully disagree. At cols. 14 and 15,

Hori describes how approximate functions for the representative points (vertices of an approximate polygon for an object region) are derived. A reference represented point V_0 on a vertex of an approximate polygon for an object region is selected. The other vertices are expressed using differential vectors $V_{j-1, j}$ (paragraph 64). The representative point trajectory function approximating device calculates an approximate function that expresses the values of the X component and the Y component of each vector (paragraph 67). For a given vector (given vertex), an approximate function for the trajectory of the X component is derived, for example, using least squares, over a given time range (paragraph 72). The approximate function is tested using an error value and if the error value is too large, then a new approximate function is derived (paragraph 57). The error value is calculated using the equation in col. 15, lines 20-25.

The error value is the maximum difference between the actual X or Y component value for a given vertex and a corresponding value according to the approximate function over the given time range. Each vertex is treated separately with a respective or approximate function and respective error values.

Therefore, the error values look at the maximum difference for a particular vertex between the approximate function trajectory and the actual trajectory, over a given time range. This is the maximum distance between the actual X or Y component of the location of the vertex and the X or Y component of the approximate location as defined by the approximate function.

In contrast, embodiments of the present invention look at the difference between the area of the object region with a representative point (i.e., vertex) relocated to the position indicated by the approximate function.

There is no teaching or suggestion in Hori of considering the change in area. In the Office Action, paragraph 29 of Hori is referred to as teaching a change in area as discussed above with regard to Applicants' embodiments. However, paragraph 29 is not related to calculating an error value for an approximate function. Paragraph 29 concerns an earlier stage of approximating an object region by a polygon. Thus, paragraph 29 is taken out of context and placed in context, the teachings of Hori do not disclose Applicants' claimed features. Therefore, Hori fails to teach calculating error value for an approximate function for a representative point based on the change in area of an object as representative point in the area of the object with the representative point replaced by the respective approximate function value, as recited in claim 1.

For the reasons set forth above, claims 2-11 and 13-15 are also distinguishable from the cited reference. Accordingly, reconsideration and withdrawal of the rejections are respectfully requested.

CONCLUSION

For the reasons above, it is respectfully submitted that claims 1-11 and 12-13 are distinguishable over the cited art. Favorable consideration and prompt allowance are earnestly solicited.

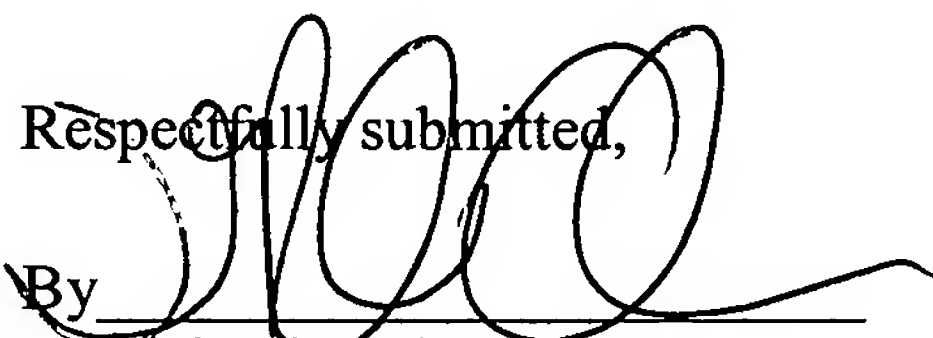
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Chad J. Billings Reg. No. 48,917 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

Application No. 10/694,887
Amendment dated December 20, 2006
Reply to Office Action of September 20, 2006

Docket No.: 1906-0129P

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

Dated: December 20, 2006

Respectfully submitted,


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Attachments